TEACHERS' RETIREMENT SYSTEM OF OKLAHOMA

INVESTMENT POLICY STATEMENT

OCTOBER, 2016

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I. Introduction and Statements of Purpose, Philosophy and Ethics

The Board of Trustees of the Teachers' Retirement System of Oklahoma, as the governing body for the System, deems it prudent and necessary to maintain this Investment Policy Statement to act as the principal governing document for the investment of System assets.

A. Legal Authority and System Description

The System is established by statute; the legal authority and description of the System are detailed below.

Constitutional Authority
Section 62 of Article 5 of the Oklahoma Constitution was added as a result of the passage of State Question 306 on July 14, 1942. This section reads:

> "The Legislature may enact laws to provide for the retirement for meritorious service of teachers and other employees in the public schools, colleges and universities in this State supported wholly or in part by public funds, and may provide for payments to be made and accumulated from public funds, either of the State or of the several school districts. Payments from public funds shall be made in conformity to equality and uniformity within the same classifications according to duration of service and remuneration received during such service."

Statutory Authority
As a result of the passage of State Question 306, the Legislature enacted House Bill 297 in the 1943 legislative session that created the Oklahoma Teachers Retirement System ("System"). The legislation has been changed substantially in the years since its creation and is currently codified in Oklahoma Statutes Title 70, Sections 17-101 et. seq. (NOTE: In the remainder of this document, statutory references will follow the notation O.S. 70 § 17-101 to reference Oklahoma Statutes Title 70, Section 17-101.)

Purpose of System
In O.S. 70 § 17-102, paragraph 1 creates the Oklahoma Teachers Retirement System and outlines the purpose of the System as follows:

> "A retirement system is hereby established and placed under the management of the Board of Trustees for the purpose of providing retirement allowances and other benefits under the provisions of this act for teachers of the State of Oklahoma."

Board of Trustees Powers
The second paragraph of O.S. 70 § 17-102 provides the broad terms of the powers entrusted to the Board of Trustees ("Board"):

> “The Board of Trustees shall have the power and privileges of a corporation and shall be known as the "Board of Trustees of the Teachers' Retirement System of Oklahoma", and by such name all of its business shall be transacted, all of its funds invested, and all of its cash and securities and other property held in trust for the purpose for which received.”

Further powers vested upon the Board are set forth in O.S. 70 § 17-106, in part:

> “(1) The general administration and responsibility for the proper operation of the retirement system and for making effective the provisions of the act are hereby vested in a Board of Trustees which shall be known as the Board of Trustees and shall be organized immediately after a majority of the trustees provided for in this section shall have qualified and taken the oath of office.”

and:

> “(10) Subject to the limitations of this act, the Board of Trustees shall, from time to time, establish rules and regulations for the administration of the funds created by this act and for the transaction of its business.

Finally, O.S. 70 § 17-106.1, in part, defines the duties of the Board in relation to investment of fund assets:

> “A. The Board of Trustees of the Teachers’ Retirement System of Oklahoma shall discharge their duties with respect to the System solely in the interest of the participants and beneficiaries and:
> 1. For the exclusive purpose of:
> a. providing benefits to participants and their beneficiaries, and
> b. defraying reasonable expenses of administering the System;
> 2. With the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims;
> 3. By diversifying the investments of the System so as to minimize the risk of large losses, unless under the circumstances it is clearly prudent not to do so; and
> 4. In accordance with the laws, documents and instruments governing the System.”

B. Statement of Purpose

A primary purpose of this investment policy statement is to guide fiduciaries, including the Board of Trustees, System staff, investment managers, consultants and others responsible for overseeing and investing the assets of the Fund. This policy also communicates foundational tenets underlying its formulation. This policy provides specific guidance regarding investment objectives, asset allocation, risk management and the means by which investment objectives are intended to be achieved. Additional specific guidance is given in defining roles, delegated duties and accountabilities of System fiduciaries as well as setting forth logical, disciplined procedures for making decisions.

C. Statement of Investment Philosophy

Since this policy is a communication tool for System fiduciaries, interested stakeholders as well as other external parties, the Board recognizes that it is important to articulate the underlying beliefs that are foundational in its formulation. Key aspects of the Board's investment philosophy are summarized in the following statements.

1. The Fund has an infinite time horizon and the assets should be invested and managed accordingly.
2. A central tenet in investing is the tradeoff between risk and return, meaning that the pursuit of higher expected returns is accompanied with higher expected risk. Bearing some degree of investment risk is necessary in the pursuit of investment return objectives.
3. Investment risk comes in many forms. The most common risk is the volatility of periodic returns measured by the statistical term known as standard deviation. Additionally, there are a variety of other risks to be considered. A partial list of these risks would include the risk of permanent loss of capital, the risk of not meeting objectives, illiquidity risk, credit risk, interest rate risk, inflation risk, leverage risk, concentration risk and manager risk. A primary focus of this investment policy is to balance, manage and, to the extent possible, control these various risks.
4. Funds with long term investment horizons are able to pursue higher expected returns associated with higher risk portfolios because they are able to remain invested when periodic declines in market values occur.
5. The Fund will best contribute to the primary goal of providing benefits to participants and their beneficiaries by realizing high risk-adjusted net returns.
6. The Board acknowledges that while other institutions may make investment decisions to pursue various worthy causes that may be admirable in their own right, the Board's investment decisions are made to achieve the primary goal of providing benefits to participants and their beneficiaries and defraying reasonable expenses.
7. Long-term investing success is best accomplished by adhering to a long-term strategic asset allocation rather than engaging in short term tactical market timing among asset classes.
8. Diversification among asset classes and securities is the primary means of controlling the risk of an investment portfolio.
9. The primary factor determining portfolio risk and return is how the portfolio is allocated among asset classes.

10. The decision-making process for investments should be both disciplined and logical deriving support from current academic theory and the application of rigorous analysis.

11. In less efficient markets where the probabilities of achieving net-of-fee outperformance relative to a passive market index are higher, active management is preferred. In more efficient markets where the probabilities of achieving net-of-fee outperformance relative to a passive market index are lower, low-cost index management is preferred.

12. Certain asset classes are only accessible in the form of private market interests which have very limited liquidity and normally higher costs relative to public market instruments. Investing a portion of the Fund in these illiquid asset classes is reasonable to the extent that they offer some desirable combination of the following relative to available public market asset classes: higher expected net return and/or risk reduction through diversification.

D. Statement of Ethical Standards

The Board of Trustees is committed to maintaining and promoting the highest ethical standards among Board members and among all parties involved in the administration of fund assets.

The Board expects all parties involved in the administration of fund assets, including all System fiduciaries, to conduct their activities according to the highest ethical standards adhering likewise to the principles expressed in the Board of Trustee Policy Manual Chapter 6 – Ethical and Fiduciary Conduct. Given the nature of fund management and investing, particular attention will be given to conflicts of interest. All parties involved in the administration of fund assets should be free of conflicts of interest to avoid even the appearance of not acting in the sole interests of System participants and their beneficiaries. Where any involved party becomes aware of an actual or potential conflict of interest it is their duty to disclose the conflict so that the Board may assess its seriousness.

II. STATEMENT OF DUTIES AND RESPONSIBILITIES

A. Board of Trustees

The Board of Trustees has the final decision making authority for the System. The Investment Committee of the Board has the authority to make investment recommendations to the Board. The Board evaluates and decides whether or not to take action on recommendations from the Investment Committee. The Investment Committee's authority and responsibilities are set forth in the Investment Committee Charter contained in the Board of Trustees Policy Manual.

Trustee duties and responsibilities are listed in summary as follows:

1. Adopt, and when deemed necessary, amend this Investment Policy Statement.

2. Determine delegated duties to be performed by other qualified fiduciaries in order to ensure that the Fund is properly administered and regularly evaluated to assess progress towards achieving established objectives.

3. Receive and evaluate reports, presentations and other materials provided by investment consultant(s), staff, investment managers, and other retained advisors to monitor the administration of Fund assets in accordance with policy objectives and to regularly assess progress towards achieving the goals and objectives defined herein.

4. Select and contract with qualified professional advisory organizations to perform functions deemed necessary by the Board to manage the Fund in accordance with policy. Common professional advisory organizations would include investment consultant(s), investment managers, global custodians and securities lending agents.

5. Evaluating the performance of retained professional advisory organizations and staff to assess fulfillment of duties, achievement of goals and compliance with policy guidelines.

6. Annually conduct a formal review of the performance of Investment Consultant(s), normally to be performed in the month of April.

7. Terminating the contracts with any retained professional advisory organization when deemed necessary.

8. Review all costs of investment operations at least annually.

B. Staff

A summary of the duties and responsibilities of the staff is as follows:

1. Provide the Board and the Investment Committee with reports, presentations and any other materials to assist them in the fulfillment of their duties and responsibilities.

2. Serve as the primary liaison between the Board of Trustees and the investment consultant(s), investment managers, custodian, securities lending agent and transition manager(s).

3. Implement Board decisions regarding asset allocation, investment structure, portfolio rebalancing procedures and retention of investment consultant(s), investment managers, custodian and securities lending agent.

4. Coordinate the search, selection and evaluation processes for investment consultant(s), investment managers, custodian and securities lending agent on behalf of the Board of Trustees.

5. Monitor and review the performance of the total fund, asset class composites, and investment managers to evaluate achievement of objectives and compliance with policy guidelines.

6. Monitor and review all costs of investment operations including, but not limited to, fees paid to investment consultant(s), investment managers, and custodian, as well as portfolio transactions costs.

7. Manage the liquidity in the Total Portfolio to ensure timely payment of Client benefit payments and plan expenses and the investment of contributions consistent with established asset allocation and portfolio rebalancing policies.

8. Conduct the search and selection of transition manager(s) in collaboration with the investment consultant(s) as directed by the Board.

9. Conduct due diligence in collaboration with the investment consultant(s) when investment managers fail to meet the expectations of the Board or are formally placed ‘On Alert’ or ‘On Notice’.

10. Research and review innovative investment ideas and concepts in collaboration with the investment consultant(s) in an effort to identify potential modifications to improve the investment portfolio.

11. Monitor the performance of the total fund, asset class composites and investment managers to determine if any issues need to be addressed by the Investment Committee or the Board of Trustees.

C. Investment Consultant

A summary of the duties and responsibilities of the investment consultant(s) retained by the Board is as follows:

1. Acknowledge status as a fiduciary to the System and remain in compliance both with this investment policy and with the current executed contract with the System.

2. Provide the Board and the Investment Committee with reports, presentations and any other materials to assist them in the fulfillment of their duties and responsibilities.

3. Assist the Board in developing and modifying policy objectives and guidelines, including the development of asset allocation strategies, recommendations on long-term asset allocation and the appropriate mix of investment manager styles and strategies.

4. Assist the Board by monitoring compliance with this Investment Policy.

5. Provide assistance in investment performance calculation, evaluation, and analysis.

6. Provide assistance in investment manager searches and selection.

7. Provide assistance in custodian, securities lending agent, transition manager and commission recapture agent searches and selection.

8. Provide timely information, written and/or oral, on investment strategies, instruments, managers and other related issues, as requested by the Board.

9. Monitor the Board's investment managers and notify the Board and staff of any material changes in the investment managers' organizational structure, their personnel or if there are performance issues.

10. Certify on a quarterly basis, in writing to the Board, the investment consultant's compliance with this Statement as it currently exists or as modified in the future.

11. Reporting to the Board at their request. The investment consultant shall report to the Board as detailed in Section VI of this policy. All reports should be timely submitted.

12. Review with the staff the status and performance of current investment managers and determine if any issues need to be addressed by the staff or the Board of Trustees.

13. Provide assistance in the search and selection of transition manager(s) as directed by the Board.

14. Provide assistance in the conduct of due diligence when investment managers fail to meet the expectations of the Board or are placed 'On Alert' or 'On Notice'.

15. Explore, research, analyze and review new investment ideas and managers in collaboration with the staff in an effort to keep the system current with investment options.

D. Investment Managers

A summary of the duties and responsibilities of each investment manager retained by the Board is as follows:

1. Acknowledge status as a fiduciary to the System and remain in compliance both with this investment policy and with the current executed contract with the System.

2. Provide the Board, the Investment Committee, the staff and the investment consultant(s) with reports, presentations and any other materials to assist them in the fulfillment of their duties and responsibilities.

3. Manage the Fund's assets in accordance with the policy guidelines and objectives expressed herein.

4. Prudently select investments based on thorough evaluation of all risks applicable to stated mandate.

5. Work with the custodian and the investment consultant to verify monthly accounting and performance reports.

6. Certify on a quarterly basis, in writing to the Board, the Investment Manager's compliance with this Statement as it currently exists or as modified in the future.

7. Report to the Board at their request. Each manager shall report to the Board and the Investment Consultant according to the reporting requirements set forth in Section VI of this policy.

8. Act as a fiduciary in adopting and adhering to proxy voting policies, acknowledging that its proxy voting policies may affect the value of their respective portfolio.

9. Seek to obtain best execution in all securities transactions to minimize the costs of trading.

E. Custodian

A summary of the duties and responsibilities of the custodian bank(s) retained by the System is as follows:

1. Acknowledge status as a fiduciary to the System and remain in compliance both with this investment policy and with the current executed contract with the System.

2. Provide the Board, the Investment Committee, the staff and the investment consultant(s) with reports, presentations and any other materials to assist them in the fulfillment of their duties and responsibilities.

3. Accept daily instructions from designated staff.

4. Notify investment managers of proxies, tenders, rights, fractional shares or other dispositions of holdings.

5. Safekeeping of securities.

6. Timely collection of interest and dividends.

7. Daily cash sweep of idle principal and income cash balances.

8. Process and maintain records of all investment manager transactions.

9. Collect proceeds from maturing securities.

10. Disburse all income or principal cash balances as directed.

11. Perform regular reconciliations of holdings and transactions with the System’s retained investment managers on at least a monthly basis.

12. Work with the System’s staff and the investment consultant to ensure accuracy in reporting.

13. Manage and administer the System’s directed brokerage program.

14. Monitor compliance with this Investment Policies Statement, provide applicable research to ensure the validity of suspected breaches, and submit appropriate commentary offering a recommendation to the reported breach.

15. Participate in an annual review of compliance with OTRS staff, to determine the effectiveness of investment policy testing. Providing required reports to assist the System’s staff and vendors with compliance with the Governmental Accounting Standards Board, the Internal Revenue Service, the Securities and Exchange Commission, the Financial Industry Regulatory Authority and other regulatory agencies.

16. Monitor, file and report on securities class action lawsuits and collect and record settlement proceeds.

17. Process and file Foreign Tax Reclaims on behalf of the System.

F. Securities Lending Agent

A summary of the duties and responsibilities of the securities lending agent retained by the System is as follows:

1. Acknowledge status as a fiduciary to the System and remain in compliance both with this investment policy and with the current executed contract with the System.

2. Provide the Board, the Investment Committee, the staff and the investment consultant(s) with reports, presentations and any other materials to assist them in the fulfillment of their duties and responsibilities..

3. Arrange terms and conditions of securities loans.

4. Monitor the market value of the securities lent and mark to market at least daily and ensure that any necessary calls for additional collateral are made and that such collateral is obtained on a timely basis.

5. Direct the investment of cash received as collateral in accordance with direction from the Board, provided that such investments are consistent with guidelines provided in this document.

6. Notify the Board of any changes to the investment guidelines in the Securities and Exchange Commission's rule 2A7 for consideration by the Board.

7. Notify OTRS staff in the event that a recalled security has not been returned by a borrowing party within 10 days of the request.

G. Transition Manager

The transition managers shall manage the transition of assets from one or more investment managers or asset categories to one or more other investment managers or asset categories. Transition managers shall be selected among those approved by the Board. Transition managers shall be utilized when such employment is likely to present significant opportunities for cost savings, technical efficiencies or other benefits to the System.

A summary of the duties and responsibilities of Transition Managers retained by the System is as follows:

1. Acknowledge status as a fiduciary to the System and remain in compliance both with this investment policy and with the current executed contract with the System.

2. Provide a pre-trade analysis, which will include, among other things, a trading liquidity analysis, portfolio sector analysis, volatility analysis, and estimated transaction costs.

3. Provide a detailed written plan of transition execution.

4. Provide a post-trade analysis, comparing the actual costs with the pre-trade estimates. The report will also include various trading statistics, benchmarking information, and detailed trade reports.

5. In all securities transactions, transition managers shall seek to obtain best execution to minimize the costs of trading.

III. PROCEDURES

A. Investment Policy Review

In order to keep the Investment Policy current, the Board will at least annually, review and modify, as deemed necessary any portions of the policy. The annual review will consider, but not be limited to, the following: objectives and guidelines, the development of asset allocation strategies, recommendations on long-term asset allocation and the appropriate mix of investment manager styles and strategies.

The Board, both upon their own initiative and upon consideration of the advice and recommendations of staff, consultants, the investment managers and other fund professionals involved with the assets, may amend policy guidelines. Proposed modifications should be documented in writing to the Board.

B. Investment Manager Policy Exceptions

Requests for an exception to invest in securities precluded by section V. A. or the applicable mandate's specific policies, should be submitted in writing to the Board of Trustees and include justification for such request, proposed process for providing quarterly reporting on attribution analysis of the contribution of the allowed exception, and a requested time period, up to three years. Exception requests will undergo a reevaluation and approval process at the end of each term.

C. Third Party Marketing and Referrals Disclosure Policy

The Teachers' Retirement System of Oklahoma requires transparency and full disclosure of all relationships in proposed and committed investments with any third parties. A "third party marketer" is a person who represents an asset management firm or any other type of investment services provider, as an independent contractor rather than as an employee of the firm, for the purpose of making presentations or securing contracts with OTRS for the firm or provider. Any such third party marketer must disclose himself or herself as a third party marketer before at the same time as contacting any member of the Board of Trustees, employee of OTRS or the outside investment consultant for OTRS. In addition, firms submitting investment proposals for consideration by Teachers' Retirement System of Oklahoma (including any sub-managers or consultants engaged by such firms) are hereby required to disclose the identity of all third-party marketers and/or individuals by whom the firm has been referred to Teachers' Retirement System of Oklahoma and further indicate those so identified that stand to receive fees or other consideration in the event that a contract between the firm and the Teachers' Retirement System of Oklahoma is secured. Any consideration paid or benefits received, or any relationship between such firm (including any sub-managers or consultants engaged by such firms) and third party marketing entities and/or individuals, shall be disclosed. The disclosure requirements established by this Policy apply throughout the term of any contractual relationship Teachers' Retirement System of Oklahoma may have with any firm and represents a continuing obligation of disclosure. This Policy becomes effective immediately and applies to all firms currently managing Teachers' Retirement System of Oklahoma assets. All firms submitting investment proposals must make the disclosures required by this Policy prior to any action being taken on the firm's investment proposal by the Board, as well as comply with the continuing obligation of disclosure.

IV. Investment Goals and Objectives

To fulfill the System's Mission Statement set forth in Chapter 2 of the Board of Trustees Policy Manual, the Board has a goal of earning a nominal, long-term, time-weighted, annualized, net total return of 8% on the investment portfolio while maintaining liquidity necessary to fund net benefits and operations.

To achieve the goal above the Board believes that several investment objectives need to be attained. In setting the objectives the Board follows the criteria as recommended in "A Primer for Investment Trustees" (Bailey, Jeffery, Jesse Phillips and Thomas Richards. *A Primer for Investment Trustees*. Charlottesville: Research Foundation of CFA Institute, 2011).
Specifically, investment objectives should be

- unambiguous and measurable,
- specified in advance,
- actionable and attainable,
- reflective of the Trustees' risk tolerance and consistent with the System's mission.

The Board has established several objectives for the investment portfolio that meet the criteria above. These objectives listed below are specified at the Total Fund, Asset Class Composite and individual mandate/Investment Account level.

Total Fund Investment Objectives

- Achieve or exceed on a three year rolling basis, absolute and risk-adjusted, net excess returns relative to the Total Fund Policy Index as specified in Appendix A.
- On a three year rolling basis, maintain relative risk levels equal to or below that of the Total Fund Policy Index.

Asset Class Investment Objectives

- Achieve or exceed on a three year rolling basis, absolute and risk-adjusted, net excess returns relative to the Asset Class Index as specified in Appendix A.
- On a three year rolling basis, maintain relative risk levels equal to or below that of the Asset Class Index.

Investment Account Objectives

- Achieve or exceed on a three year rolling basis, absolute and risk-adjusted, net excess returns relative to the Investment Account Index as specified in Appendix A.
- On a three year rolling basis, maintain relative risk levels equal to or below that of the Investment Account Index.

V. INVESTMENT GUIDELINES AND CONSTRAINTS

Full discretion, within the parameters of the guidelines described herein, is granted to the investment managers regarding the allocation of their portfolios, the selection of securities, and the timing of transactions. Any exception requests to the guidelines listed herein should be communicated to OTRS staff.

A. Ineligible Investments

Due to the vast number of types of financial instruments, as well as financial engineering, the following list of ineligible investments is not considered to be exhaustive. Any instrument, to which these Investment Guidelines do not explicitly prohibit, that is not expressly allowed by the applicable mandate specific guidelines, should be requested through the exception process, detailed in section III. B, prior to investment.

1. Privately placed or other non-marketable debt, except securities issued under Rule 144A.

2. Securities denominated in non-US currency, unless provided in accordance with an applicable mandate.

3. Lettered, legend or other so-called restricted stock

4. Commodities and commodity derivatives

5. Short sales and purchases on margin; leverage is not allowed unless OTRS has expressly given the right to lever to a manager.

6. Direct investments in private placements, real estate, oil and gas and venture capital, unless provided in accordance with an applicable mandate.

B. Universal Cash Rule for all OTRS Accounts

All portfolios shall strive to hold no more than 5% in cash or cash equivalents at any time. In the event that cash holdings breach the 5% threshold for three consecutive days or 7% at any point in time, the manager shall submit a written notice and explanation of each such event to Investment Staff.

C. Index Portfolios

1. All index portfolios characteristics and returns are expected to closely resemble the designated benchmark.

2. Futures and options instruments are permitted solely for the purpose of cash management provided that no leverage is used.

D. Domestic Equity Portfolios

1. Domestic Equity portfolios will not concentrate greater than 25% of market value of funds under advisement in holdings of a single industry.

2. Domestic Equity portfolios will not concentrate greater than 7% of market value of funds under advisement in holdings of a single issuer.

3. Domestic Equity portfolios will not hold greater than 5% of the outstanding shares of a single issuer.

4. Domestic Equity portfolios will be limited to the purchase of shares of common stock and American Depository Receipts (ADRs) listed on a domestic exchange.

5. Futures and options instruments are permitted solely for the purpose of cash management provided that no leverage is used.

E. International Equity

1. International Equity portfolios will not concentrate greater than 25% of market value of funds under advisement in holdings of a single industry as classified by GICS.

2. International Equity portfolios will not concentrate greater than 7% of market value of funds under advisement in holdings of a single issuer.

3. International Equity portfolios will not hold greater than 5% of the outstanding shares of a single issuer.

4. International Equity portfolios will not concentrate greater than 35% of the market value of funds under advisement in issuers from the UK or Japan and 30% of the market value of funds under advisement in issuers from any other single country.

5. International Equity portfolios will invest no less than 50% of the portfolio in companies located in developed markets as determined by MSCI.

6. Futures and options instruments are permitted solely for the purpose of cash management provided that no leverage is used.

F. Fixed Income

1. Fixed Income portfolios will not concentrate greater than 25% of market value of funds under advisement in holdings of a single industry. This restriction does not apply to U.S. sovereign issues.

2. Fixed Income portfolios will not concentrate greater than 5% of market value of funds under advisement in holdings of a single issuer. This restriction does not apply to sovereign issues.

3. Fixed Income portfolios will not hold greater than 5% of the issued securities of a single issuer.

4. Fixed Income portfolios will not concentrate greater than 20% in non-USD denominated obligations.

5. Fixed Income portfolios will not concentrate greater than 10% in developing or emerging markets issuers as determined by MSCI.

6. Fixed Income portfolios may hold shares of common stock converted from embedded corporate actions. At the time of conversion, managers should communicate issues converted into common shares to OTRS staff.

7. Futures and options instruments are allowed solely for the purpose of hedging interest rate risk, duration risk, or managing cash.

Core Plus Fixed Income

1. Fixed Income portfolios will not concentrate greater than 25% in issues which are rated Ba1 or lower by Moody's, or BB+ or lower by Standard & Poor's.

2. Fixed Income portfolios will not purchase issues which are rated below Caa2 Moody's, or CCC by Standard & Poor's. In the event that a credit is downgraded below this minimum, the investment manager shall immediately notify Staff and provide an evaluation and recommended course of action.

3. Unrated securities shall be permitted provided the security is rated Caa2 or CCC equivalent by the Manager's internal rating system. In the event that a manager purchases an unrated security, it is the manager's responsibility to notify OTRS staff of the manager's internal rating within 48 hours of the purchase.

4. The manager may not invest more than 5% of the portfolio in securities that are solely rated by the manager.

High Yield Fixed Income

1. High Yield portfolios will not concentrate greater than 10% of market value of funds under advisement in holdings of unrated obligations. In the event that a manager purchases an unrated security, it is the manager's responsibility to notify OTRS staff of the manager's internal rating within 48 hours of the purchase.

2. Investments in other funds (including REITSs) not managed or advised by either the Management Company or the Investment Adviser shall not exceed five (5%) of the total assets of the portfolio, at any time, based on the aggregate market value of such investments.

G. Securities Lending

1. Securities lending collateral portfolios will adhere to the quality and maturity guidelines established by SEC Rule 2a-7.

H. Private Equity

1. Private Equity portfolios will be comprised of:

   a. Corporate Finance Funds
      i. Buyout and growth capital funds
      ii. Distressed debt and turnaround funds
      iii. Mezzanine debt funds
   b. Venture Capital Funds; and
   c. Any other private investment strategy approved by OTRS.

2. In order to achieve a diversified private equity portfolio, the following sub-allocations shall be used as an overall target for commitment levels within the portfolio:

Segment	Long-Term Allocation Ranges
Corporate Finance[1]	80% - 100%
Venture Capital	0% - 20%

1 Includes buyout, turnaround and debt related strategies

Region	Long-Term Allocation Ranges
U.S. and Western Europe	80% - 100%
Other	0% - 20%

3. Private Equity portfolios will make commitments of at least $10 million.

4. Private Equity portfolios will not make commitments to a primary fund which exceeds an amount equal to 20% of the total amount raised for a proposed fund.

5. Private Equity portfolios will not concentrate aggregate commitments to a single investment sponsor greater than 25% of funds under advisement.

6. Prior to making a new commitment, the Manager shall provide detailed information on the opportunity, including a final memorandum summarizing all due diligence performed, to Staff, the Investment Consultant, and the Board.

7. OTRS will not invest funds into opportunities that intend to purchase remaining assets from a previous fund.

8. Private equity investments will be governed by the subscription agreement, the Limited Partnership Agreement and other related documents. In the event of a conflict between the aforementioned documents and the Investment Policy Statement, the subscription agreements, Limited Partnership Agreement and other related documents shall take precedent in the governance of the investments.

9. Private Equity portfolios that meet the following criteria will not be considered eligible for initial evaluation or potential funding commitments:

   1. Vehicles which are not backed by accredited investors, as that term is defined in Section 2 of the Federal Securities Act of 1933, as amended, (15 U.S.C. Section 77(b)) and rules and regulations promulgated under that section.

   2. Investments representing direct equity ownership in individual companies or other business entities, without the benefit of an intermediate partnership or other indirect ownership structure. However, this exception shall not include direct equity ownership which results from the distribution of securities from partnerships to OTRS. This rule does not restrict the possibility of a co-investment in Private Equity; contingent upon a third party consultant providing the recommendation and vehicle for investment.

   3. Investments which would violate resolutions passed by OTRS' Board.

   4. Investments in which the General Partner has committed to invest no personal or firm assets.

I. Real Estate

Real Estate funds will invest in a manner consistent with guidelines set forth by the applicable subscription documents. In the event of a conflict between the aforementioned documents and the Investment Policy Statement, the subscription agreements, Limited Partnership Agreement and other related documents shall take precedent in the governance of the investments. Real estate investments will be categorized as Core and Non-Core. The objectives of real estate investments are to: provide diversification benefits to the overall portfolio; provide an inflation hedge; generate stable income; produce attractive risk-adjusted return; and preserve capital. Real estate exposure shall be acquired primarily through comingled fund vehicles, both open end and closed end, and, to a lesser extent, joint venture limited partnerships and separate accounts.

1. Real estate funds will not concentrate, in any single property, an amount exceeding 25% of the total Gross Asset Value (GAV) of the overall investment fund.

2. Core real estate funds will not concentrate greater than 15% of the total GAV of the investment fund in Non-Core properties.

3. Core real estate funds will not carry leverage in excess of 35% of the GAV of the investment fund. Non-Core real estate funds will not carry leverage in excess of 65% of the GAV of the investment fund.

J. Master Limited Partnership (Energy Infrastructure)

1. Master Limited Partnership (MLP) portfolios will be limited to the purchase of investments in energy infrastructure, which include: (a) securities such as units and other ownership instruments issued by MLPs that are organized as partnerships or limited liability companies which elect to be taxed as a partnership; (b) securities that offer economic exposure to MLPs from entities holding primarily general partner or managing member interests in MLPs; and (c) equity securities in companies that focus on energy infrastructure and the midstream energy sector that includes activities such as gathering, processing, transporting and storing of crude oil, natural gas and natural gas liquids.

2. MLP portfolios will not concentrate greater than 15% of market value of funds under advisement in holdings of unregistered, privately placed securities of publicly traded MLPs at the time of purchase.

3. MLP portfolios will be permitted to invest in Initial Public Offerings and Secondary Public Offerings of MLP securities.

4. MLP portfolios will not concentrate greater than 10% of market value of funds under advisement in holdings of a single issue. A “single issue” is defined by shares in either the limited partner, or shares in the general partner; but shares in the limited partnership and general partnership should not be taken in aggregate.

5. MLP portfolios will not hold greater than 5% of the outstanding shares of a single issuer.

6. Futures and options instruments are permitted solely for the purpose of cash management provided that no leverage is used.

K. Opportunistic Investments

1. The Opportunistic Investment Asset Class will be comprised of unique investments that are not adequately classified within the other investment mandates. The mandate should allow the System to earn premium returns by investing in unique investment opportunities. The target range for the portfolio is 0% to 5% of total System investment assets. The Board shall make commitments of at least $50 million per portfolio.

2. The Board shall not make commitments to a single portfolio greater than 20% of the total amount of the proposed portfolio.

3. The Board shall not concentrate aggregate commitments to a single investment manager's firm greater than 25% of the firm's total assets under management.

4. Prior to making a new commitment, the Consultant shall provide detailed information on the opportunity, including a final memorandum summarizing all due diligence performed, to Staff and the Board.

5. Opportunistic investments will be governed by the subscription agreement, the Limited Partnership Agreement, Investment Manager Agreement and/or other similar documents. In the event of a conflict between the aforementioned documents and the Investment Policy Statement, the opportunistic investment's governing documents shall take precedent in the governance of the investments.

L. Derivatives

Investment managers may be permitted, under the terms of individual investment contracts, to use derivative instruments as set forth in each manager's investment guidelines. A derivative is a security or contractual agreement that derives its value from some underlying security, commodity, currency or index. Some examples of derivatives for purposes of this Policy are (a) contracts such as forwards, futures, put and call options, and swaps and (b) non-traditional securities with embedded options such as collateralized mortgage obligations (CMOs) and structured note products. Traditional securities with options such as convertible bonds and preferred stock are not considered derivatives under this policy, nor are warrants. Derivatives shall not be used to introduce leverage, that is, the notional value of derivatives positions cannot exceed the cash or securities values available from OTRS assets. Managers must ascertain and carefully monitor the creditworthiness of any third parties involved in derivative transactions. Each investment manager is required to report to the Board in their monthly report the market value and notional value of derivatives exposure in their portfolio.

VI. EVALUATION AND REVIEW

A. Investment Staff Reporting Requirements

1. As Necessary (based on occurrence and on a timely basis)
   a. Review any material Investment Policy compliance violations.
   b. Review pertinent information regarding due diligence on Managers that have failed to meet the expectations of the Board or are placed 'On Alert' or "On Notice' on the Investment Consultant's Monthly Manager Status Report.
2. Monthly
   a. Review presenting Investment Managers' portfolio characteristics including relevant benchmark comparisons, portfolio performance, liquidity, holdings and holdings overlap between managers.
3. Quarterly
   a. Review all costs of trading.
   b. Certify to Board that Investment Consultant has certified their compliance with all requirements of this Investment Policy Statement. Report to the Board if any Investment Consultant(s) have failed to certify their compliance, and make recommendations as to any action Board should consider.
   c. Report to the Board if any Investment Managers have failed to certify their compliance, and make recommendations as to any action Board should consider.
   d. Other comments or information as required.
4. Annually
   a. Present Investment Staff Annual Work Plan to Board of Trustees for Review.
   b. Review of investment oversight process, total fund construction and evaluation of investment manager's portfolio.
   c. Review all costs of investment operations including, but not limited to, fees netted against system accounts and fees paid to Investment Consultant(s), Investment Managers, Custodian, Securities Lending Agent and Transition Manager(s).
   d. The General Counsel shall review the ADV filed with the SEC by the Investment Consultant and advise of any material findings and/or changes.
   e. Review all form ADV's filed with the SEC on all Investment Managers and advise the board on any material changes and/or findings.

B. Investment Consultant Reporting Requirements

1. As Necessary (based on occurrence and on a timely basis)
   a. Review of Investment Consultant Organizational Structure
   b. Organizational changes (i.e., ownership)
   c. Any departures/additions to consulting staff
   d. Material changes in assets under advisement.
2. Monthly
   a. Performance Review.
      i. Present total fund, asset class and Investment Manager gross returns and net of fee returns for last month, last quarter, year-to-date, fiscal year-to-date, last year, last three years, last five years, last ten years, and since inception versus designated benchmarks.

        ii. Compare actual asset allocation to target asset allocation and make recommendations for rebalancing.
        iii. Present manager status summary, including any recommended changes.
    b. Other comments or information as required.
3. Quarterly
    a. Performance Review.
        i. Present total fund, asset class and Investment Manager returns and peer group rankings for last calendar quarter, year-to-date, fiscal year-to-date, last year, last three years, last five years and since inception versus designated benchmarks.
        ii. Review and analysis of any outstanding investment manager policy exceptions.
    b. Other comments or information as required.
    c. Certify to Board that Investment Consultant is in compliance with all requirements of this Investment Policy Statement.
    d. Certify to Board that Investment Managers have certified their compliance with all requirements of this Investment Policy Statement. Report to the Board if any Investment Managers have failed to certify their compliance, and make recommendations as to any action Board should consider.
4. Annually
    a. Review of investment oversight process, total fund construction and evaluation of investment manager's portfolio.
        i. Brief review of the Investment Consultant's oversight process.
        ii. Critical analysis of the performance of the total fund, with particular attention paid to asset categories and Investment Managers that underperformed their relative benchmarks and the actuarially assumed rate of return.
        iii. Review of the asset allocation strategy used over the past year and underlying rationale.
        iv. Evaluation of strategies success/disappointments.
        v. Current asset allocation strategy and underlying rationale.
    b. Review of revenue sources and conflict of interest disclosure.
        i. Provide the board with financial information regarding annual brokerage revenues, conference fees and sponsorships, and other monies received from money managers versus consulting revenues received directly from clients.
        ii. Disclose all brokerage and other compensation, including conference fees, consulting fees and sponsorships, received by the consultant from the System's managers.
        iii. Disclose any compensation received by the Investment Consultant from any Investment Manager or other vendor it recommends hiring.
        iv. Disclose any affiliated Investment Management Firm.
    c. Disclose any affiliated Investment Management firm. Summary of Investment Guidelines.
        i. Discuss adherence to guidelines.
        ii. Comments, concerns, or suggestions regarding the policy statement.

C. Investment Manager Reporting Requirements

1. As Necessary (based on occurrence and on a timely basis)
    a) Review of Organizational Structure.
        i. Organizational changes (i.e., ownership).
        ii. Discussion of any material changes to the investment process.
        iii. Any departures/additions to investment staff.
        iv. Material changes in assets under management.
2. Monthly - All Managers with at least monthly reconciliation and valuation will provide:
    a. Performance Review.
        i. Present total fund and asset class returns for last month, calendar quarter, year-to-date, last year, last three years, last five years and since inception versus designated benchmarks.
        ii. Present total fund net-of-fees returns for last month, calendar quarter, year-to-date, last year, last three years, last five years and since inception,
        iii. Discuss performance relative to benchmarks; provide attribution analysis that identifies returns due to allocation and selection decisions.
        iv. Provide portfolio characteristics.
        v. Risk and Return Attribution analysis of any granted exceptions to investment policy analysis.
    b. Provide Portfolio Holdings.
        i. Present book value and current market value.
        ii. List individual securities by sector.
    c. Other Comments or Information.
3. Quarterly
    a. Summary of Investment Guidelines.
        i. Discuss adherence to guidelines.
        ii. Comments, concerns, or suggestions regarding the policy statement.
    b. Certify to Board and the Investment Consultant that Manager is in compliance with all requirements of this Investment Policy Statement. Said certification shall be in writing and shall be received by the Board and Investment Consultant no later than 30 days after the end of each calendar quarter.
    c. Any Manager that manages a particular mandate that does not reconcile assets and provide market value of assets on a monthly basis will provide monthly performance and holdings reporting on a quarterly basis.
4. Annually
    a. Review of Investment Process and Evaluation of Portfolio Management Process.
        i. Brief review of investment process.
        ii. Investment strategy used over the past year and underlying rationale.
        iii. Evaluation of strategies success/disappointments.
        iv. Current investment strategy and underlying rationale.
    b. Provide, in either printed form or electronic access to, Form ADV filed with the Securities and Exchange Commission.
    c. Each manager, as pertinent to their applicable mandate, will report at least annually to the Board of Trustees their respective commissions recapture program on behalf of the Teachers' System. Each advisor shall provide:

i. A copy of its monitoring procedures.
ii. A statement demonstrating compliance with Section 28(e) of the Securities Exchange Act of 1934, and/or other applicable laws.
iii. Analysis of execution.
iv. Each manager, as pertinent to their applicable mandate, will report annually to the Board of Trustees a record of proxy policies, as well as voting record for the previous 12 month period.

APPENDIX A - PERFORMANCE BENCHMARKS

Composite	**Benchmark Index**
Total Portfolio	Policy Index*
U.S. Equities	Russell 3000
International Equities	MSCI ACWI ex.US IMI
Fixed Income	Barclays U.S. Universal
Real Estate	NCREIF Property
Master Limited Partnerships	Alerian MLP
Private Equity	Russell 2000 + 4%
Large Cap U.S. Equities	Russell 1000
Mid Cap U.S. Equities	Russell Mid Cap
Small Cap U.S. Equities	Russell 2000
Small Cap International Equities	MSCI World ex US Small Cap

**The Policy Index is a composite index composed of the monthly asset class benchmark returns weighted by their respective strategic asset allocation targets.*

Investment Manager, *Account Mandate*	**Benchmark**
Advisory Research, *Int'l Equity Sm Cap*	MSCI World ex US Small Cap
Advisory Research, *MLP*	Alerian MLP
AEW, *Real Estate*	NCREIF - ODCE
Allianz Global, *Int’l Equity*	MSCI ACWI ex US
American Realty Advisors, *Real Estate*	NCREIF - CEV
Antheus Capital, *Real Estate*	NCREIF - CEV
Aronson Johnson & Ortiz, *Mid-Capitalization*	Russell Mid Cap
Causeway Capital, *Int’l Equity*	MSCI ACWI Ex US Value
Chickasaw Capital Management, *MLP*	Alerian MLP
Cove Street Capital *Small Capitalization*	Russell 2000 Value
Dune Real Estate Partners, *Real Estate*	NCREIF - CEV
EPOCH Investment Partners, *All Capitalization*	Russell 3000
EPOCH Investment Partners, *Int'l Equity*	MSCI World ex US Small Cap
Franklin Park, *Private Equity*	Russell 2000 + 4.0% per year
Frontier Capital, *Mid-Capitalization*	Russell Mid Cap Growth
Frontier Capital, *Small Capitalization*	Russell 2000 Value
Geneva Capital Management, *Small Capitalization*	Russell 2000 Growth
GreenOak Real Estate Partners, *Real Estate*	NCREIF - CEV
Heitman, *Real Estate*	NCREIF - ODCE
Hoisington Investment Management, *Core Fixed*	Barclays US Treasury
Hotchkis & Wiley, *Mid-Capitalization*	Russell Mid Cap Value
Hotchkis & Wiley, *Large Capitalization*	Russell 1000 Value
L&B Realty Advisors - Golden Driller, *Real Estate*	NCREIF - CEV

Investment Manager, ***Account Mandate***	**Benchmark**
L&B Realty Advisors, *Real Estate*	NCREIF - ODCE
Landmark Partners, *Real Estate*	NCREIF - CEV
Loomis Sayles, *Core Fixed*	Barclays Universal
Loomis Sayles, *High Yield*	Merrill Lynch High Yield
Lord Abbett, *Core Fixed*	Barclays Universal
Lord Abbett, *High Yield*	Merrill Lynch High Yield
MacKay Shields, *Core Fixed*	Barclays Universal
MacKay Shields, *High Yield*	Merrill Lynch High Yield
Neumeier Poma Investment, *Small Capitalization*	Russell 2000 Value
Northern Trust, *Equity Index*	S&P 500 Cap Weighted
PIMCO BRAVO I, *Opportunistic Fixed Income*	Barclays Universal
PIMCO BRAVO II, *Opportunistic Fixed Income*	Barclays Universal
Sawgrass, *Large-Capitalization*	Russell 1000 Growth
Shapiro Capital Management, *Small Capitalization*	Russell 2000
Starwood Capital Group, *Real Estate*	NCREIF - CEV
State Street Global Advisors, *Equity Index*	S&P 500 Equal Weighted
Swank/Cushing Capital LLC, *MLP*	Alerian MLP
Wasatch Advisors Inc., *Int'l Equity Sm Cap*	MSCI ACWI ex US Small Cap
Wasatch Advisors Inc., *Small Capitalization*	Russell 2000 Growth
Wellington Management, *Int'l Equity Sm Cap*	MSCI EAFE ex US Small Cap
Wellington Management, *Int'l Equity*	MSCI ACWI ex US Growth
Wellington Management, *Mid-Capitalization*	Russell Mid Cap Growth

APPENDIX B - STRATEGIC ASSET ALLOCATION

The assets of the Plan shall be invested with a focus on meeting long-term objectives in order to fulfill the System's Mission Statement. Recognizing the goals and objectives of the System, the following strategic asset allocation target has been adopted:

U.S. Equities	40.0%
International Equities	17.5%
Fixed Income	23.5%
Real Estate	7.0%
Master Limited Partnerships	7.0%
Private Equity	5.0%
Cash	0%

While the Board of Trustees has adopted the strategic asset allocation above and the rebalancing policy below, the number of investment managers or mandates used is not specifically set forth by policy. The number and type of investment managers to be hired within an asset class shall be determined by the Board of Trustees based upon periodic analyses of asset class portfolio structures.

APPENDIX C - REBALANCING POLICY

In the event the Plan's market values change to the extent that asset class percentage allocations fall below defined minimum percentage allocations or exceed defined maximum percentage allocations, staff shall prepare a plan to rebalance the portfolio according to the guidelines shown below:

	Minimum	Low Rebalance Point	Target	High Rebalance Point	Maximum
U.S. Equity	34.0%	37.0%	40.0%	43.0%	46.0%
International Equity	12.5%	15.0%	17.5%	20.0%	22.5%
Fixed Income	18.5%	21.0%	23.5%	26.0%	28.5%
Real Estate	5.0%	6.0%	7.0%	8.0%	9.0%
Master Limited Partnerships	5.0%	6.0%	7.0%	8.0%	9.0%
Private Equity	3.5%	4.3%	5.0%	5.8%	6.5%

When allocations move outside minimum or maximum boundaries they will be rebalanced half of the way back to the target percentage. Due to the asymmetrical nature of maximum and minimum boundaries, a full rebalancing of each asset class may not be possible. In such cases, rebalancing asset classes up from their minimums shall take priority. Cash held in short-term investments with the Custodian shall be considered as domestic fixed income for rebalancing purposes. In highly stressed market environments where volatility and transaction costs are elevated, a rebalancing plan designed to reduce tracking error and transaction costs may be developed and substituted for the normal rebalancing approach defined by the boundaries above.

In rebalancing the portfolio, staff shall consider asset class liquidity in determining the timeframe over which the rebalancing should take place in an attempt to reduce transaction costs. Securities may be transferred in lieu of cash, if feasible, to achieve lower transaction costs. Staff and the investment consultant may consult with those managing the affected investment accounts to determine the appropriate incremental amounts to be transferred as well as the appropriate duration of the rebalancing. The primary goal of rebalancing will be to control risk by correcting variances from minimum and maximum asset class allocations: minimizing transaction costs and diversifying across time will be secondary goals. In the event that Plan asset market values change to correct variances from minimum and maximum asset class allocations, rebalancing programs may be halted prior to the anticipated date of completion.

Upon the development of a rebalancing plan consistent with these guidelines, staff will advise the Plan's Custodian of the upcoming changes and direct affected investment managers to implement the required purchases and sales in a manner that leaves the resulting portfolios in concert with their current strategies.

The Staff may defer any element of the rebalancing with concurrence of the Chairman of the Board of Trustees under circumstances where percentage allocation variances outside of minimum and maximum boundaries are minimal and appear to be only temporary in nature or in the event that such rebalancing would not be in the best interest of the Plan.

Annually, staff may present an optional strategy for rebalancing all asset classes near target allocations, giving due consideration to potential transaction costs.

APPENDIX D - INVESTMENT MANAGER EXCEPTIONS TO INVESTMENT GUIDELINES

Any exception requests subsequent to the approval of these guidelines should be submitted according to the framework established in Section III, B.

Requesting firm: *Hoisington*

Exception requested: Section V.B.; *Increase maximum portfolio concentration in cash and cash equivalents from 5% to 100%.*

Proposition for attribution reporting: *Quarterly reporting illustrating the contribution to total return.*

Requested term: *12/31/2016*

Requesting firm: *Shapiro Capital*

Exception requested: Section V; *Selectively hold up to 15% of the portfolio in larger capitalization companies.*

Proposition for attribution: *Provide quarterly reporting with and without large cap holdings.*

Requested term: *12/31/2017*

Requesting firm: *Wellington Management International Small Cap Equity*

Exception requested: Section V.F.4.; *Increase the maximum portfolio exposure in Japan from 35% to 40%.*

Proposition for attribution: *When the portfolio exposure in Japan exceeds 35%, provide quarterly reporting illustrating the contribution to total return.*

Requested term: *12/31/2016*

Requesting firm: *Loomis, Sayles & Company*

Exception requested: Section V.G.4.&5.; *Increase the maximum portfolio concentration in emerging markets from 10% to 30%, increase the maximum portfolio concentration in non-USD from 20% to 40%, and establish a 10% allocation to preferred stock in the High Yield Portfolio.*

Proposition for attribution: *Attribution from the allocation reported quarterly as a component of portfolio total return.*

Requested term: *12/31/2017*

Requesting firm: *Loomis, Sayles & Company*

Exception requested: Section V.G.5.; *Increase the maximum portfolio concentration in developed or emerging markets from 10% to 15%.*

Proposition for attribution: *Attribution from the allocation reported quarterly as a component of portfolio total return.*

Requested term: *04/30/2018*